



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/617,817      | 07/17/2000  | Yousuf Saifullah     | 017.38719X00        | 8282             |

20457 7590 05/10/2004

ANTONELLI, TERRY, STOUT & KRAUS, LLP  
1300 NORTH SEVENTEENTH STREET  
SUITE 1800  
ARLINGTON, VA 22209-9889

EXAMINER

VU, THONG H

ART UNIT PAPER NUMBER

2142

DATE MAILED: 05/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/617,817

Applicant(s)

SAIFULLAH ET AL.

Examiner

Thong H Vu

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

1. Claims 1-47 are pending.
2. Applicant's arguments with respect to claims 1-47 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-47 are rejected under 35 U.S.C. § 102(e) as being anticipated by Hasan et al [Hasan 6,707,813 B1].

1. As per claim 1, Hasan discloses a method for carrying call control information after a call handover from an Internet Protocol (IP) packet switched network to a circuit switched cellular network comprising:

generating a first message containing call control information (i.e.: setting up the call, monitoring of the call, termination of the call, *specification, pp 8 lines 8-10*), the first message being of an IP-based protocol (by user equipment such as PDA, laptop computer, wireless telephone device, *specification, pp 7*) [Hasan, a First IP-based mobile station to a second IP-based mobile station, col 1 line 60-col 2 line 12]

encapsulating the first message into a second message (i.e.: Mobile terminal encapsulate SIP message) [Hasan, H.323 or SIP or packet switched mobile access, SIP proxy server, col 2 lines 30-45];

transferring the second message to a network element, the network element being part of a circuit switched cellular network [Hasan, circuit network or GSM, col 2 lines 59-col 3 line 5];

encapsulating, at the network element, the second message into a third message (i.e: mobile switching center sends Map\_Process\_Access\_ Sig message to gateway, *specification page 9 line 19-page 10 line 4*) [Hasan proxy agent provides the encapsulation, col 2 lines 59-col 3 line 5, charging Gateway, col 3 lines 32-52;];

transferring the third message to a gateway [gateway node 32, Hasan Fig 2]; extracting, at the gateway, the first message from the third message; and sending the first message to a server or destination [Hasan, the message sends through Gateway by two different proxy agent entities, col 4 lines 38-63],

the first message is carried through the circuit switched network transparently [Hasan transparently register, col 3 line 65-col 4 line 15]As per claims 2,14,27 Hasan discloses the IP-based protocol is one of a Session Initiation Protocol (SIP) and a H.323 protocol [Hasan, H.323 or SIP or packet switched mobile access, SIP proxy server, col 2 lines 30-45].

3. As per claims 3,15,28 Hasan discloses the circuit switched cellular network is a Global System for Mobile Communications (GSM) network [Hasan, circuit network or GSM, col 2 lines 59-col 3 line 5].
4. As per claims 4,16 Hasan discloses the second message comprises a User Information message (MSC receives the user information message, specification pp 9 line20) [Hasan, Message flow, Fig 1, col 4 lines 47-63].
5. As per claims 5,17 Hasan discloses the third message comprises a Map\_Process\_Access\_Sig message (i.e.: MSC) as a design choice.
6. As per claims 6,18,29 Hasan discloses the circuit switched cellular network is an IS-41 network as a design choice [Hasan ANSI-41, col 2 lines 64].
7. As per claims 7,19,30 Hasan discloses the circuit switched cellular network is an IS-136 network as a design choice.
8. As per claim 8, Hasan discloses the generating and first encapsulating are performed at a user device as design choice of allocated proxy agent [Hasan proxy agent, col 2 line 59-col 3 line 5]

9. As per claims 9,21 Hasan discloses the user device comprises a mobile device [Hasan, a First IP-based mobile station to a second IP-based mobile station, col 1 line 60-col 2 line 12].

10. As per claims 10,22,26 Hasan discloses the user device comprises one of a mobile phone, a portable computer, and a Personal Digital Assistant (PDA) a inherent features of mobile device.

11. As per claims 11,20,23,31 Hasan discloses the IP packet switched network comprising an IP packet switched mobile network as inherent feature of IP-based network.

12. As per claims 12,24,32 Hasan discloses the network element comprising a Mobile Switching Center (MSC) as inherent feature of IP-based network.

13. As per claim 35, Hasan discloses a call processing server, the call processing server being part of the first packet switched network [Hasan, SIP proxy server, col 2 lines 32-44].

14. As per claim 36, Hasan discloses a first packet switched gateway, the first packet switched gateway being part of the first packet switched network and operatively

Art Unit: 2142

connected to the call processing server [Hasan, Multiple gateway nodes, col 1 lines 15-35; SIP proxy server, col 2 lines 32-44].

15. As per claim 37, Hasan discloses a serving node, the serving node being part of the second packet switched network and operatively connected to the radio access network and the first packet switched gateway, the serving node capable of carrying the packets between the at least one user device through the radio access network and the first packet switched gateway [Hasan, Multiple gateway nodes, col 1 lines 15-35; SIP proxy server, col 2 lines 32-44].

16. As per claim 38, Hasan discloses a second packet switched gateway operatively connected to the serving node and the call processing server, the second packet switched gateway capable of carrying the packets between the serving node and the call processing server [Hasan, Multiple gateway nodes, col 1 lines 15-35; SIP proxy server, col 2 lines 32-44].

17. As per claim 39, Hasan discloses the first packet switched gateway comprising a third generation (3G) IP gateway [Hasan, Multiple gateway nodes, col 1 lines 15-35; SIP proxy server, col 2 lines 32-44].

18. As per claim 40, Hasan disclose a serving GPRS support node (SGSN) [Hasan SGSNs, col 2 lines 45-58].

19. As per claim 41, Hasan discloses the second packet switched gateway comprises a gateway GPRS support node (GGSN) [Hasan, Multiple gateway nodes, col 1 lines 15-35; SIP proxy server, col 2 lines 32-44].

20. As per claim 42, Hasan discloses the second packet switched gateway comprises a second generation (2G) IP gateway [Hasan, Multiple gateway nodes, col 1 lines 15-35].

21. As per claim 43, Hasan discloses the second packet switched network comprises a General Packet Radio Service (GPRS) network [Hasan, Multiple gateway nodes, col 1 lines 15-35].

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

22. Claims 1-47 are rejected under 35 U.S.C. § 103 as being unpatentable over Voit et al [Voit 6,707,813 B1] in view of Yoakum et al [Yoakum 6,421,674 B1].

23. As per claim 1, Voit discloses a method for carrying call control information after a call handover from an Internet Protocol (IP) packet switched network to a circuit switched cellular network comprising:



generating a first message containing call control information (i.e.: setting up the call, monitoring of the call, termination of the call, *specification, pp 8 lines 8-10*), the first message being of an IP-based protocol (by user equipment such as PDA, laptop computer, wireless telephone device, *specification, pp 7*) [Voit, a first message or call control object from a PC connected to the Packet switched IP routed network, col 4 lines 9-22]

encapsulating the first message into a second message (i.e.: Mobile terminal encapsulate SIP message) [Voit, a Internet Telephone Gateway connectes the packet switched and circuit switched networks, col 4 lines 23-30];

transferring the second message to a network element (i.e.: Gateway) , the network element being part of a circuit switched cellular network [Voit, a Internet Telephone Gateway connects the packet switched and circuit switched networks, col 4 lines 23-30];

encapsulating, at the network element, the second message into a third message (i.e: mobile switching center sends Map\_Process\_Access\_ Sig message to gateway, *specification page 9 line 19-page 10 line 4*); transferring the third message to a gateway; extracting, at the gateway, the first message from the third message [Voit, the Internet Telephone Gateway encapsulated or converted message from packet switched format to circuit switched format, col 4 lines 23-30];

and the first message is carried through the circuit switched network transparently [Voit, completely transparent to the calling and called parties, col 30 line 57-col 31 line 5].

However Voit did not explicitly detail sending the first message to a server or destination. It was well-known in the art that a user message is carried through a Wide Area network including packet switched and circuit switched network to the destination which may be a client node, server, or Multiple gateway/proxy server as taught by Yoakum [see Hasan, Khanna, Kalliokulju references]. Yoakum discloses a method and system using a proxiabile protocol on the network environment with two proxy server including a SIP proxy server to provide a third proxiabile protocol message [Yoakum a third proxiabile protocol message, col 11 lines 1-38]

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the third proxiabile message over the SSS7/IP gateway to IP network as taught by Yoakum into the Voit's apparatus in order to utilize the proxy function over large network. Doing so would provide a real time, distributed service that is transparent to the network user.

24. Claims 13,25,33,44-47 contain the similar limitations set forth of method claim 1. Therefore, claims 13,25,33,44-47 are rejected for the similar rationale set forth in claim 1

25. As per claims 2,14,27 Voit -Yoakum disclose the IP-based protocol is one of a Session Initiation Protocol (SIP) and a H.323 protocol [Voit, the Internet Telephone Gateway encapsulated or converted message from packet switched format to circuit switched format, col 4 lines 23-30].

Art Unit: 2142

26. As per claims 3,15,28 Voit -Yoakum disclose the circuit switched cellular network is a Global System for Mobile Communications (GSM) network [Voit, the Internet Telephone Gateway encapsulated or converted message from packet switched format to circuit switched format, col 4 lines 23-30].

27. As per claims 4,16 Voit -Yoakum disclose the second message comprises a User Information message (MSC receives the user information message, specification pp 9 line20) [Voit, message, col 5 lines 12-33].

28. As per claims 5,17 Voit -Yoakum disclose the third message comprises a MAP PROCESS ACCESS SIG message (i.e.: MSC) as a design choice.

29. As per claims 6,18,29 Voit -Yoakum disclose the circuit switched cellular network is an IS-41 network as a design choice.

30. As per claims 7,19,30 Voit -Yoakum disclose the circuit switched cellular network is an IS-136 network as a design choice.

31. As per claim 8, Voit -Yoakum disclose the generating and first encapsulating are performed at a user device as a design choice

Art Unit: 2142

32. As per claims 9,21 Voit -Yoakum disclose the user device comprises a mobile device [Yoakum, mobile device, col 3 lines 60-65].

33. As per claims 10,22,26 Voit -Yoakum disclose the user device comprises one of a mobile phone, a portable computer, and a Personal Digital Assistant (PDA) [Yoakum, mobile device, col 3 lines 60-65][Voit laptop computer, col 18 lines 35-48]

34. As per claims 11,20,23,31 Voit -Yoakum disclose the IP packet switched network comprising an IP packet switched mobile network [Voit, the Internet Telephone Gateway encapsulated or converted message from packet switched format to circuit switched format, col 4 lines 23-30].

35. As per claims 12,24,32 Voit -Yoakum disclose the network element comprising a Mobile Switching Center (MSC).

36. As per claim 35, Voit -Yoakum disclose a call processing server, the call processing server being part of the first packet switched network [Voit, the Internet Telephone Gateway encapsulated or converted message from packet switched format to circuit switched format, col 4 lines 23-30].

37. As per claim 36, Voit -Yoakum disclose a first packet switched gateway, the first packet switched gateway being part of the first packet switched network and operatively

connected to the call processing server [Voit, the Internet Telephone Gateway encapsulated or converted message from packet switched format to circuit switched format, col 4 lines 23-30].

38. As per claim 37, Voit -Yoakum disclose a serving node, the serving node being part of the second packet switched network and operatively connected to the radio access network and the first packet switched gateway, the serving node capable of carrying the packets between the at least one user device through the radio access network and the first packet switched gateway [Voit, the Internet Telephone Gateway encapsulated or converted message from packet switched format to circuit switched format, col 4 lines 23-30].

39. As per claim 38, Voit -Yoakum disclose a second packet switched gateway operatively connected to the serving node and the call processing server, the second packet switched gateway capable of carrying the packets between the serving node and the call processing server [Voit, the Internet Telephone Gateway encapsulated or converted message from packet switched format to circuit switched format, col 4 lines 23-30].

40. As per claim 39, Voit -Yoakum disclose the first packet switched gateway comprising a third generation (3G) IP gateway [Voit, the Internet Telephone Gateway

Art Unit: 2142

encapsulated or converted message from packet switched format to circuit switched format, col 4 lines 23-30].

41. As per claim 40, Voit -Yoakum disclose a serving GPRS support node (SGSN) as inherent feature of IP-based mobile nodes.

42. As per claim 41, Voit -Yoakum disclose the second packet switched gateway comprises a gateway GPRS support node (GGSN) [Voit, multiple gateway, col 18 lines 22-35].

43. As per claim 42, Voit -Yoakum disclose the second packet switched gateway comprises a second generation (2G) IP gateway [Voit, multiple gateway, col 18 lines 22-35].

44. As per claim 43, Voit -Yoakum disclose the second packet switched network comprises a General Packet Radio Service (GPRS) network as inherent feature of packet switched network.

Art Unit: 2142

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Thong Vu, whose telephone number is (703)-305-4643.

The examiner can normally be reached on Monday-Thursday from 8:00AM- 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, *Jack Harvey*, can be reached at (703) 305-9705.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9700.

Any response to this action should be mailed to: Commissioner of Patent and Trademarks, Washington, D.C. 20231 or faxed to :

After Final (703) 746-7238

Official: (703) 746-7239

Non-Official (703) 746-7240

Hand-delivered responses should be brought to Crystal Park 11,2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

*Thong Vu*  
*Patent Examiner*  
*Art Unit 2142*

A handwritten signature in black ink, appearing to read 'Thong Vu', with a horizontal line underneath.